CONTROL SYSTEM OF AUTOMATIC WIND FAN BASED ATMEGA16 MICROCONTROLLER

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ABSTRACT

The purpose of making a final project entitled Automatic Fan Control System Based on ATmega16 microcontroller is to facilitate the user to adjust the fan speed automatically. So it can save and streamline a job that is usually done manually which then can work automatically and efficiently to humans.

The study was conducted with the design and manufacture of Automatic Fan Control System Based on ATmega16 microcontroller. Then performed functional testing tool, and also conducted research used temperature sensor capabilities. The system is designed using ATmega16 microcontroller as the main controller with LCD display using the Hitachi 16x2, 4-input settings button, with the detection of temperature using the temperature sensor LM35 is confirmed by the Op-Amp are processed by the internal microcontroller through ADC, with fan control via IC ULN 2003 as a driver that controls a relay that can control the speed of the fan with 3 levels of speed through the inductor.

Based on test results and performance of the Automatic Fan Control System Based on ATmega16 microcontroller has demonstrated results in accordance with planning. The fan works with the speed according to temperature values that have been set. Temperature measurement system has an average error of 1.69%.

Keywords : Control, Fan, Temperature, ATmega16 microcontroller, LCD, Automatic.